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| 10/799,481                 | 03/11/2004  | Hiroshi Okagawa      | FUJO 21.012         | 8356             |
| 26304                      | 7590        | 03/10/2008           | EXAMINER            |                  |
| KATTEN MUCHIN ROSENMAN LLP |             |                      | LIU, BEN H          |                  |
| 575 MADISON AVENUE         |             |                      | ART UNIT            |                  |
| NEW YORK, NY 10022-2585    |             |                      | PAPER NUMBER        |                  |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

|                              |                               |                                |  |
|------------------------------|-------------------------------|--------------------------------|--|
| <b>Office Action Summary</b> | Application No.<br>10/799,481 | Applicant(s)<br>OKAGAWA ET AL. |  |
|                              | Examiner<br>BEN H. LIU        | Art Unit<br>2616               |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on December 10th, 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| <p>1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br/>Paper No(s)/Mail Date _____</p> | <p>4) <input type="checkbox"/> Interview Summary (PTO-413)<br/>Paper No(s)/Mail Date. _____</p> <p>5) <input type="checkbox"/> Notice of Informal Patent Application</p> <p>6) <input type="checkbox"/> Other: _____</p> |
|---|--|

## **DETAILED ACTION**

### ***Response to Amendment***

1. This is in response to an amendment/response filed on December 10<sup>th</sup>, 2007.
2. Claims 1, 5, and 7-14 have been amended.
3. No claims have been cancelled.
4. No claims have been added.
5. Claims 1-14 are currently pending.

### ***Specification***

6. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Headrick et al. (U.S. Patent 5,724,358) in view of Tasaki et al. (U.S. Patent 6,895,806).

**For claim 1**, Headrick et al. disclose a packet transfer path control apparatus which controls a transfer of a unicast packet and a multicast packet, comprising an output port determination unit determining an output port through which a packet input from any of one or more input ports is to be output (*see column 3 lines 53-56, which recite transferring data from an input port to one or more output ports*), a packet data storage unit storing data of the plurality of input packets (*see column 2 lines 51-55, which recite a buffer shared by the output ports for both*

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*unicast and multicast traffic*); and a plurality of packet output units respectively corresponding to the plurality of output ports (*see column 2 lines 53-55, which recite a plurality of output queues corresponding to each of the output ports*). Headrick et al. disclose all the subject matter of the claimed invention with the exception of assigning output order identification information for designation of an output order of the packet, the output order of the packet indicating an input order of the packet among a plurality of input packets including both the unicast packet and the multicast packet and indicating whether the unicast packet arrives earlier than the multicast packet. Each packet output unit reading data of a packet determined by said output port determination unit to be output through a corresponding output port associated with the packet output unit in an output order indicated by the output order identification information from said packet data storage unit, and outputting the read data through the corresponding output port.

Tasaki et al. from the same or similar fields of endeavor teach a unicast/multicast system that stores the relation of output index information and output port number (*see abstract and column 1 lines 37-43*). The output index information is assigned by the internal cell generating section 10 as unicast and multicast data arrive and indicates the order that the user data arrives (*see figure 1 and column 2 lines 43-46*). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the unicast/multicast system that stores the relation of output index information and output port number as taught by Tasaki et al. with the packet transfer path control apparatus which controls a transfer of a unicast packet and a multicast packet as taught by Headrick et al. The unicast/multicast system that stores the relation of output index information and output port number can be implemented by coupling the internal cell generating section 10 that generates an output index information as taught by Tasaki et al.

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with the input of input modules 80 of the packet transfer path control apparatus which controls a transfer of a unicast packet and a multicast packet as taught by Headrick et al. The motivation for using the unicast/multicast system that stores the relation of output index information and output port number as taught by Tasaki et al. with the packet transfer path control apparatus which controls a transfer of a unicast packet and a multicast packet as taught by Headrick et al. is to improve the efficiency of the system by allowing greater control of the input data.

**For claim 2**, Headrick et al. disclose a packet transfer path control apparatus which controls a transfer of a unicast packet and a multicast packet further comprising: a unicast packet management information storage unit storing for each output port management information including a storage position in said packet data storage unit of the data of each unicast packet to be output through the output port and output order identification information for the unicast packet; and a multicast packet management information storage unit provided for each output port and storing, for each of the multicast packets to be output through the output port, management information including a storage position in said packet data storage unit of the data of the multicast packet and output order identification information of the multicast packet (*see column 7 lines 25-37, which recite a pointer memory unit that stores storage position of data in the packet data storage unit*).

**For claim 3**, Headrick et al. disclose all the subject matter of the claimed invention with the exception wherein said packet output unit for each output port compares output order identification information about a next output unicast candidate of packets whose packet management information is stored in said unicast packet management information storage unit with output order identification information about a next output multicast candidate of packets

whose packet management information is stored in said multicast packet management information storage unit, and determining a packet to be output next from the output port.

Tasaki et al. from the same or similar fields of endeavor teach a unicast/multicast system that stores the relation of output index information and output port number (*see abstract and column 1 lines 37-43*). The output index information is assigned by the internal cell generating section 10 as unicast and multicast data arrive and indicates the order that the user data arrives (*see figure 1 and column 2 lines 43-46*). The output index information for each packet can be compared to determine the output order of the packets. Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the unicast/multicast system that stores the relation of output index information and output port number as taught by Tasaki et al. with the packet transfer path control apparatus which controls a transfer of a unicast packet and a multicast packet as taught by Headrick et al. The unicast/multicast system that stores the relation of output index information and output port number can be implemented by coupling the internal cell generating section 10 that generates an output index information as taught by Tasaki et al. with the input of input modules 80 of the packet transfer path control apparatus which controls a transfer of a unicast packet and a multicast packet as taught by Headrick et al. The motivation for using the unicast/multicast system that stores the relation of output index information and output port number as taught by Tasaki et al. with the packet transfer path control apparatus which controls a transfer of a unicast packet and a multicast packet as taught by Headrick et al. is to improve the efficiency of the system by allowing greater control of the input data.

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**For claim 4,** Headrick et al. disclose all the subject matter of the claimed invention with the exception wherein said output order identification information is serial numbers indicating input orders of all packets input through all input ports, or a serial number for all packets input through each output. Tasaki et al. from the same or similar fields of endeavor teach a unicast/multicast system that stores the relation of output index information and output port number (*see abstract and column 1 lines 37-43*). The output index information is assigned by the internal cell generating section 10 as unicast and multicast data arrive and indicates the order that the user data arrives (*see figure 1 and column 2 lines 43-46*). The output index information is a number that corresponds to specific input data packets (*see column 3 lines 14-18*). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the unicast/multicast system that stores the relation of output index information and output port number as taught by Tasaki et al. with the packet transfer path control apparatus which controls a transfer of a unicast packet and a multicast packet as taught by Headrick et al. The unicast/multicast system that stores the relation of output index information and output port number can be implemented by coupling the internal cell generating section 10 that generates an output index information as taught by Tasaki et al. with the input of input modules 80 of the packet transfer path control apparatus which controls a transfer of a unicast packet and a multicast packet as taught by Headrick et al. The motivation for using the unicast/multicast system that stores the relation of output index information and output port number as taught by Tasaki et al. with the packet transfer path control apparatus which controls a transfer of a unicast packet and a multicast packet as taught by Headrick et al. is to improve the efficiency of the system by allowing greater control of the input data.



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**For claims 5 and 14,** Headrick et al. disclose a packet transfer path control apparatus which controls a transfer of a unicast packet and a multicast packet, comprising an output port determination unit determining an output port through which a packet input from any of one or more input ports is to be output (*see column 3 lines 53-56, which recite transferring data from an input port to one or more output ports*), a pointer storage unit storing for each output port a pointer to a location where there is stored data of a last input one of the unicast packets to be output through the output port or packet management data for the last input unicast packet (*see column 7 lines 25-37, which recite a pointer memory that stores a plurality of pointers that are used to track the location of the stored data*), a packet data storage unit storing data of a plurality of input packets including both the unicast packet and the multicast packet (*see column 2 lines 51-55, which recite a buffer shared by the output ports for both unicast and multicast traffic*), a packet output unit provided for each output port, reading data of a packet determined by said output port determination unit to be output through the output port in an output order for guarantee of an input/output order of the unicast packet and the multicast packet based on stored contents of said pointer storage unit from said packet data storage unit and outputting the read data through the output port (*see column 2 lines 53-55, which recite a plurality of output queues corresponding to each of the output ports*). The output order indicates an input order of the packet among the plurality of input packets and indicates whether the unicast packet arrives earlier than the multicast packet (*see column 7 lines 1-37, which recite using a memory manager with a linked list to store pointers to all the stored unicast and multicast data in sequential order*).

**For claims 6,** Headrick et al. disclose a packet transfer path control apparatus which controls a transfer of a unicast packet and a multicast packet, further comprising: a unicast packet management information storage unit storing for each output port packet management information including a storage position in said packet data storage unit for data of each unicast packet to be output through the output port; and a multicast packet management information storage unit provided for each output port and storing packet management information including a storage position in said packet data storage unit for data of each multicast packet to be output through the output port, and a value of a pointer read corresponding to the output port from said pointer storage unit when the multicast packet is input. *(see column 7 lines 25-37, which recite a pointer memory unit that stores storage position of data in the packet data storage unit).*

**For claims 7,** Headrick et al. disclose a packet transfer path control apparatus which controls a transfer of a unicast packet and a multicast packet, wherein said pointer points to the storage position in said packet data storage unit for data of a last input unicast packet, or a storage position of packet management information corresponding to the unicast packet in said unicast packet management information storage unit *(see column 7 lines 1-37, which recite using a linked list to store pointers to all the stored unicast and multicast data in sequential order where the address of the last input packet is stored at the end of the linked list).*

**For claims 8,** Headrick et al. disclose a packet transfer path control apparatus which controls a transfer of a unicast packet and a multicast packet, wherein said packet output unit for each output port storing the storage position in said unicast packet management information storage unit of packet management information for the unicast packet output immediately before from the output port, comparing, when a next packet is to be output through the output port, the

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value of the pointer to a next output candidate of multicast packets whose packet management information is stored in said multicast packet management information storage unit with the storage position, and outputting a multicast packet when the value match the storage position or outputting a unicast packet when the value does not match the storage position (*see column 7 lines 25-37, which recite using a linked list to store pointers wherein the order of the packets are compared by comparing the position of the pointer in the linked list structure*).

**For claim 9**, Headrick et al. disclose a computer-readable recording medium having recorded thereon a computer-executable program, the program used to direct a computer to control a transfer of a unicast packet and a multicast packet, comprising: a procedure of determining one of output ports through which one a packet input through an input port is to be output (*see column 3 lines 53-56, which recite transferring data from an input port to one or more output ports*), a procedure of, if the input packet is the unicast packet to be output through the one output port, writing, for the one output port, order identification information assigned for the unicast packet in a table storing for each output port the management information about each unicast packet to be output thorough the output port, the order identification information being assigned to all packets to be output through all of the output ports or all packets to be output through each port in to input order (*see column 6 lines 28-47, which recite internal tags containing identification and management information for unicast packets*); and a procedure of, if the input packet is the multicast packet to be output through the one output port, writing order identification information assigned for the multicast packet in a table provided for the one output port and storing the management information about each multicast packet to be output through the one output port, the order identification information being assigned to all packets to be output

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through all of the output ports or all packets to be output through each port in to input order (*see column 6 lines 28-47, which recite internal tags containing identification and management information for multicast packets*). Headrick et al. disclose all the subject matter of the claimed invention with the exception wherein an output order of the packet indicates the input order of the packet among a plurality of input packets including both the unicast packet and the multicast packet and indicating whether the unicast packet arrives earlier than the multicast packet.

Tasaki et al. from the same or similar fields of endeavor teach a unicast/multicast system that stores the relation of output index information and output port number (*see abstract and column 1 lines 37-43*). The output index information is assigned by the internal cell generating section 10 as unicast and multicast data arrive and indicates the order that the user data arrives (*see figure 1 and column 2 lines 43-46*). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the unicast/multicast system that stores the relation of output index information and output port number as taught by Tasaki et al. with the packet transfer path control apparatus which controls a transfer of a unicast packet and a multicast packet as taught by Headrick et al. The unicast/multicast system that stores the relation of output index information and output port number can be implemented by coupling the internal cell generating section 10 that generates an output index information as taught by Tasaki et al. with the input of input modules 80 of the packet transfer path control apparatus which controls a transfer of a unicast packet and a multicast packet as taught by Headrick et al. The motivation for using the unicast/multicast system that stores the relation of output index information and output port number as taught by Tasaki et al. with the packet transfer path control apparatus

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which controls a transfer of a unicast packet and a multicast packet as taught by Headrick et al. is to improve the efficiency of the system by allowing greater control of the input data.

**For claim 10**, Headrick et al. disclose all the subject matter of the claimed invention with the exception wherein the program further comprises: a procedure of reading order identification information about the unicast packet to be output next from a table storing unicast packet management information corresponding to an output port, and reading order identification information about the multicast packet to be output next from a table storing multicast packet management information; and a procedure of comparing the two read values of order identification information, and determining which packet is to be output next through the output port, the unicast packet or the multicast packet.

Tasaki et al. from the same or similar fields of endeavor teach a unicast/multicast system that stores the relation of output index information and output port number (*see abstract and column 1 lines 37-43*). The output index information is assigned by the internal cell generating section 10 as unicast and multicast data arrive and indicates the order that the user data arrives (*see figure 1 and column 2 lines 43-46*). The output index information for each packet can be compared to determine the output order of the packets. Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the unicast/multicast system that stores the relation of output index information and output port number as taught by Tasaki et al. with the packet transfer path control apparatus which controls a transfer of a unicast packet and a multicast packet as taught by Headrick et al. The unicast/multicast system that stores the relation of output index information and output port number can be implemented by coupling the internal cell generating section 10 that generates an output index information as taught by Tasaki

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et al. with the input of input modules 80 of the packet transfer path control apparatus which controls a transfer of a unicast packet and a multicast packet as taught by Headrick et al. The motivation for using the unicast/multicast system that stores the relation of output index information and output port number as taught by Tasaki et al. with the packet transfer path control apparatus which controls a transfer of a unicast packet and a multicast packet as taught by Headrick et al. is to improve the efficiency of the system by allowing greater control of the input data.

**For claim 11,** Headrick et al. disclose a computer-readable recording medium having recorded thereon a computer-executable program, the program used to direct a computer to control a transfer of a unicast packet and a multicast packet, comprising: a procedure of determining one of a plurality of output ports through which a packet input through an input port is to be output (*see column 3 lines 53-56, which recite transferring data from an input port to one or more output ports*), a procedure of, when the input packet is the unicast packet, storing for the one output port a storage address in a table storing management information about the input packet or a storage address in a table storing the data of the input packet a plurality of input packets including both the unicast packet and the multicast packet (*see column 7 lines 25-37, which recite a pointer memory that stores a plurality of pointers that are used to track the location of the stored unicast data*); and a procedure of, when the packet is the multicast packet, writing in a table storing management information about the multicast packet for each output port through which the packet is to be output a storage address in a table storing management information about the unicast packet stored corresponding to the one output port or a storage address in a table storing the data of the packet (*see column 7 lines 25-37, which recite a pointer*

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*memory that stores a plurality of pointers that are used to track the location of the stored unicast data). The output order of the packet indicates the input order of the packet among the plurality of input packets and indicating whether the unicast packet arrives earlier than the multicast packet (see column 7 lines 1-37, which recite using a memory manager with a linked list to store pointers to all the stored unicast and multicast data in sequential order).*

**For claim 12,** Headrick et al. disclose a computer-readable recording medium having recorded thereon a computer-executable program, the program used to direct a computer to control a transfer of a unicast packet and a multicast packet further comprising a procedure of reading a storage address in a table storing management information about the unicast packet corresponding to the multicast packet to be next output, or a storage address in a table storing data of the unicast packet from a table storing management information about a multicast packet for each output port; *(see column 7 lines 1-13, which recite accessing pointers to data stored in a buffer using a linked list structure)*, a procedure of comparing the read storage address in a table storing management information about the unicast packet or a storage address in a table storing data of the unicast packet with a storage address in a table storing management information about the last output unicast packet or the storage address in a table storing the data of the packet, and determining which is to be output from the output port, the unicast packet or the multicast packet; and a procedure of, when the unicast packet is output, storing a storage address in a table storing management information about the unicast packet to be output or a storage address in a table storing data of the packet *(see column 7 lines 25-37, which recite using a linked list to store pointers wherein the order of the packets are compared by comparing the position of the pointer in the linked list structure).*

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**For claim 13**, Headrick et al. disclose a packet transfer path control apparatus which controls a transfer of a unicast packet and a multicast packet, comprising an output port determination means for determining an output port through which a packet input from any of one or more input ports is to be output (*see column 3 lines 53-56, which recite transferring data from an input port to one or more output ports*), packet data storage means for storing data of a plurality of input packets including both the unicast packet and the multicast packet (*see column 2 lines 51-55, which recite a buffer shared by the output ports for both unicast and multicast traffic*), and packet output means provided for each of a plurality of output ports for reading data of a packet determined by said output port determination unit to be output through the output port (*see column 2 lines 53-55, which recite a plurality of output queues corresponding to each of the output ports*). Headrick et al. disclose all the subject matter of the claimed invention with the exception of assigning output order identification information for designation of an output order of the packet and outputting the packet in the order indicated by the output order identification information from said packet data storage means. The output order indicates the input order of the packet among the plurality of input packets and indicates whether the unicast packet arrives earlier than the multicast packet, and outputting the read data through the output port.

Tasaki et al. from the same or similar fields of endeavor teach a unicast/multicast system that stores the relation of output index information and output port number (*see abstract and column 1 lines 37-43*). The output index information is assigned by the internal cell generating section 10 as unicast and multicast data arrive and indicates the order that the user data arrives (*see figure 1 and column 2 lines 43-46*). Thus, it would have been obvious to the person of



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ordinary skill in the art at the time of the invention to use the unicast/multicast system that stores the relation of output index information and output port number as taught by Tasaki et al. with the packet transfer path control apparatus which controls a transfer of a unicast packet and a multicast packet as taught by Headrick et al. The unicast/multicast system that stores the relation of output index information and output port number can be implemented by coupling the internal cell generating section 10 that generates an output index information as taught by Tasaki et al. with the input of input modules 80 of the packet transfer path control apparatus which controls a transfer of a unicast packet and a multicast packet as taught by Headrick et al. The motivation for using the unicast/multicast system that stores the relation of output index information and output port number as taught by Tasaki et al. with the packet transfer path control apparatus which controls a transfer of a unicast packet and a multicast packet as taught by Headrick et al. is to improve the efficiency of the system by allowing greater control of the input data.

### *Response to Arguments*

11. Claims 5, 7, 8, 9, 10, and 12 were objected due to various informalities. The applicant has overcome the objection by amending the claims. Therefore, the objects have been withdrawn.

12. Claims 9 and 11 were rejected under 35 U.S.C. 101 because the claimed invention was directed to non-statutory subject matter. For claims 9 and 11, the claim limitation "a program

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used to direct a computer” in line 1 of claim 9 and line 1 of claim 11 is not a process, machine, manufacture, or composition of matter, or any new and useful improvement thereof because there is no physical structure/connection of medium recited in the claims. The applicant has amended the claims 9 and 11 to overcome the rejection. Therefore, the rejections have been withdrawn.

13. Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection. Claims 1-14 are currently rejected under 35 U.S.C. 103(a) as being unpatentable over Headrick et al. (U.S. Patent 5,724,358) in view of Tasaki et al. (U.S. Patent 6,895,806).

### ***Conclusion***

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. (See form PTO-892).

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BEN H. LIU whose telephone number is (571)270-3118. The examiner can normally be reached on 9:00AM to 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Firmin Backer can be reached on (571) 272-6703. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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